

MONTHLY WEATHER REVIEW,

MARCH, 1878.

WAR DEPARTMENT,

Office of the Chief Signal Officer,

DIVISION OF

TELEGRAMS AND REPORTS FOR THE BENEFIT OF COMMERCE AND AGRICULTURE.

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INTRODUCTION.

In compiling the present Review the following data, received up to April 13th, have been made use of, viz: the regular tri-daily weather charts, containing the data of simultaneous observations taken at one hundred and thirty Signal Service stations and twelve Canadian stations; monthly journals and means from one hundred and thirty-four of former, and means from twelve of latter; two hundred and forty-three monthly registers from Volunteer Observers; forty-seven monthly registers from United States Army Post Surgeons; Marine Records; International Simultaneous Observations; monthly reports of the Weather Services of the States of Iowa and Missouri; reliable newspaper extracts; special reports.

BAROMETRIC PRESSURE.

Upon chart No. II is shown the general distribution of the atmospheric pressure by the isobaric lines. Compared with the means for March of previous years the pressure for the present month averages lower than usual, except for the California coast, where it has been about the normal. From the Missouri valley to the Upper Lakes it is lower from 0.15 to 0.25 of an inch; in Nova Scotia from 0.10 to 0.15 of an inch.

The local barometric ranges, as reduced to sea-level, for the month, have been as follows: *Large*—Springfield, Mass., 1.64 in.; Portland, Me., 1.58; Mt. Washington, 1.55; Boston, 1.53; Albany, New Haven and Wood's Holl, 1.49; New London and Eastport, 1.48; Newport, 1.46; Burlington, 1.44; New York, 1.41; Philadelphia, 1.36, and Rochester, 1.33 in. *Small*—San Diego, 0.52 in.; Los Angeles and Key West, 0.55; Yuma, 0.65; Santa Fe, 0.66; Brownsville, Tex., 0.68; Mobile, 0.70; New Orleans, Vicksburg and St. Marks, 0.73; San Francisco, Pioche, Montgomery and Galveston, 0.75; and Visalia, Indianola, Nashville and Jacksonville, 0.76 in.

Areas of High Pressure.—Ten of these have appeared and are described. While the number is about the average for the month, yet none of them were very decided, as is usual for the month of March. There have not been any general "northers" in the Gulf States during the month.

No. I.—This is a continuation of the high pressure area described in the February Review as No. X. 1st, in the morning it was central north of New York; highest barometer, reduced to sea-level, 30.69 in. at Rockliffe, Canada, and 0.65 in. above the normal at Father Point; the temperature was below zero in the Ottawa and St. Lawrence valleys, minimum -12° at Rockliffe, and below freezing from New England to the Lakes and interior of the Middle States and North Carolina. 2nd, it was highest in the morning in southern New England, with the barometer 30.43 at New London, and 0.41 above the normal at Boston and New London; temperature below freezing from northern Michigan to New England, and below zero over the mouth of the St. Lawrence. During the day it disappeared in advance of storm No. I.

No. II.—1st, the pressure increased along the entire Pacific coast, with clear weather, the barometer at San Francisco reading 0.30 above the normal by midnight. 2d, it continued advancing eastward across the Rocky Mountain region, producing high northerly winds and gales from Dakota to northern Texas; N. 56 miles on Pike's Peak; midnight barometer at Salt Lake City 0.49 above normal; morning minimum temperature on Pike's Peak, -10° . 3rd, it extended toward the Lower Missouri valley and the Southwest, with colder and clear weather; barometer 0.30 above normal at Denver and North Platte in the afternoon. 4th, in the morning it was central in Texas and Indian Territory, with barometer 0.23 above normal at Fort Sill and Denison. 5th, morning, it covered the South Atlantic States, with cold and clear weather; temperature below freezing from northern Georgia and eastern Tennessee to New England; at Wilmington, mid-